

Neches River Above Lake Palestine (0606) Recreational Use Attainability Analysis Summary and Recommendation

A recreational use attainability analysis (RUAA) was conducted on Neches River Above Lake Palestine (0606) in the summer of 2014 to determine the appropriate recreational use and numeric criteria. Neches River Above Lake Palestine is a classified perennial water body that is approximately 33 miles in length. The creek is located in Henderson, Van Zandt, and Smith counties. It was identified in the 2014 Texas Clean Water Act Section 303(d) List of Impaired Water Bodies due to elevated bacteria levels. It was initially listed in 2008.

The RUAA identified that the presumed use of primary contact recreation (PCR) for Neches River Above Lake Palestine is appropriate. PCR 1 is defined in §307.3 (a) of the Texas Surface Water Quality Standards as activities that are presumed to involve a significant risk of ingestion of water (e.g. wading by children, swimming, water skiing, diving, tubing, surfing, and the following whitewater activities: kayaking, canoeing, and rafting).

During the field surveys, field staff observed fishing occurring on the water body. Landowners reported three instances of observed PCR (i.e. swimming and children wading). One interviewee noted that they had heard of swimming at one site. Fishing and boating are very popular on this water body. Neches River Above Lake Palestine had an average thalweg of 0.79 meters (31.10 in) and ten pools deeper than 1 meter. Stream flow ranged from normal to no flow during both surveys. The Palmer Drought Severity Index (PDSI) indicated slightly wet conditions during both field surveys. The stream runs through River Park in the city of Chandler. River Park provides a boat ramp, a nature walk, picnic areas, and a new three mile paddling trail that opened in 2016. Many of the survey sites were at public road crossings. In these locations, private property boundaries generally limited access to directly around and underneath bridge crossings. Access down the stream bank was moderate and dependent on the density of vegetation.

Based on evidence collected during the RUAA study, the TCEQ recommends that Neches River Above Lake Palestine retain its primary contact recreation use and corresponding *E. coli* geometric mean criteria of 126 colonies/100mL for the entire segment, from a point 6.7 kilometers (4.2 miles) downstream of FM 279 in Henderson/Smith County to Rhine Lake Dam in Van Zandt County before it was breached in 2001, in accordance with §307.4 (j) (1) of the Texas Surface Water Quality Standards.